

DEPARTMENT OF HEALTH **BUREAU FOR RADIATION CONTROL** 111 Livingston Street (20th Flr.) Brooklyn, N.Y. 11201 (718) 643-7967



July 25, 1988

Dr. Joshua Lederberg President Rockefeller University 1230 York Avenue New York, New York 10021

Dear Joshua:

I was hoping to secure your expert opinion in a matter which, though very remote from my own area of any professional knowledge, is of obvious concern to all of us in the health sciences.

In the period c. 1950-1970, the Atomic Energy Commission and the Department of Defense conducted massive research programs seeking drug agents that would reduce the physiological impact of elevated doses of ionizing radiation. The basic objective was to increase the effective survivability of soldiers in combat situations involving nuclear weapons. Another hoped for objective was to enable civil populations to survive dangerous fallout levels. As a secondary benefit, the possible application to increase the dose to patients requiring radiation therapy was also sought.

The bottom-line result of the many broad-breadth studies was essentially negative for the objective sought. Though there has been some very limited success in animal experiments with certain radioprotective drugs and even some clinical trails to assist cancer radiotherapy, to my knowledge there is no presently planned use of such materials in military matters or in nuclear medicine.

However, it may be that the detailed results of work done on several thousand compounds may have application in HIV therapy. Among the parameters addressed were hoped for favorable effects on the immune system and of course toxicity level. It would appear that a survey would be in order for the various classes of compounds investigated for possible application to HIV pharmacology.

Appended is a repro of Chapter 12 Radioprotectants by Giambarresi and Jacobs from Military Radiobiology (ed. James J. Conklin, Richard S. Walker, Academic Press, 1987). What was learned from the referenced prior studies is reviewed in some detail.

I would welcome whatever observations you (or your colleagues) may have and would not be at all offended if you told me to forget it and stick to my last. Thank you and best personal regards.

Sincerely Yours

Leonard R. Solon, Ph.D.

Director

LRS/1p

Enclosure: Radioprotectants (repro Chapter 12)